

**Remarks**

Reconsideration of this application, as amended, is respectfully requested. Claims 64-74 are pending in this application. Claims 64 and 74 have been amended to more clearly reflect the claimed subject matter. New claims 75-100 have been added. These amendments do not add new matter and are supported by the application as originally filed. Applicants reserve the right to prosecute any canceled or otherwise unclaimed subject matter in this or another application.

Exemplary support for new claims 75-100 is found in the locations referred to in the table below.

<b>Claim</b>	<b>Support in the '204 Application</b>
75	Page 9, lines 20-27.
76	Page 8, lines 21- 26, page 9 lines 13-27; page 10, lines 1-5; page 10, lines 15-23; Figures 1-5; and original claims 1-2 and 19-22.
77, 78	Page 18, lines 7-9; page 20, line 17, to page 24, line 15; and original claims 35-37 and 43.
79-81	Page 3, lines 2-4; Page 9, lines 28-30; and original claims 19 and 23.
82, 83	Page 11, lines 19-32; page 11, line 18, to page 12, line 17; and Figure 4 ( <i>see, e.g.</i> , parts 400, 430, 450).
84, 85	Page 8, lines 11-20, and original claim 4.
86	Page 21, line 19-20; page 25, line 1; page 25, lines 3-4; and page 26, line 11.
87	Page 8, lines 21- 26, page 9 lines 13-27; page 10, lines 1-5; page 10, lines 15-23; Figures 1-5; and original claims 1-2 and 19-22.
88, 89	Page 18, lines 7-9; page 20, line 17, to page 24, line 15; and original claims 35-37 and 43.
90-92	Page 3, lines 2-4; Page 9, lines 28-30; and original claims 19 and 23.

93, 94	Page 11, lines 19-32; page 11, line 18, to page 12, line 17; and Figure 4 ( <i>see, e.g.</i> , parts 400, 430, 450).
95, 96	Page 8, lines 11-20, and original claim 4.
97	Page 21, line 19-20; page 25, line 1; page 25, lines 3-4; and page 26, line 11.
98-100	Page 15, lines 1-32.

Consideration and entry of these amendments is respectfully requested.

**I. Rejections of the claims under 35 U.S.C. § 103(a)**

**A. Rejection of claims 64-74 over Harris in view of Raysburg and Brennan**

Claims 64-74 stand rejected under 35 U.S.C. 103(a) as being obvious over Harris *et al.* (U.S. Pat. No. 4,871,683) in view of Raysburg *et al.* (U.S. Pat. No. 5,106,583), and Brennan (U.S. Pat. No. 5,472,672). (Office Action, page 2.) Applicants respectfully disagree and traverse this rejection as set forth below. In addition, Applicants do not believe the rejections would be applicable to new claims 75-100 for at least the reasons set forth below.

The Examiner states at page 6 of the Office Action that Applicants' arguments filed July 25, 2007 were fully considered but not considered persuasive. In those arguments, Applicants pointed out that recent case law requires a successful obviousness argument to do more than merely demonstrate that the various elements of a claimed invention were independently known in the prior art. *KSR Int'l v. Teleflex Inc.*, 550 U.S. at \_\_, Slip Op. at 1-24 (Apr. 30, 2007) (No. 04-1350). Applicants respectfully maintain that the present rejections suffer from the same deficiencies as did those of the previous Office Action. Namely, the description of the prior art is incorrect with respect to the technology and is completely silent as to what would have motivated one of skill in the art to combine the various elements of the prior art. As such, the Examiner has not made a *prima facie* showing of obviousness.

The Examiner's description of Harris is incorrect; Harris does not "disclose a reaction system substantially as claimed." (Office Action, page 3.) For instance, the

Examiner has not shown that any of the cited references teach “a plurality of movable stations positioned above the carousel” as instantly claimed. (Claims 64 and 76.) The Examiner alleged that Harris teaches a carousel containing “well 58 arranged on the radius of the carousel, a rotator 74, 76 rotates the carousel step-wise around the axis”. (Office Action, page 3.) Similarly, the Examiner alleges that Raysberg teaches “a carousel 19 with a plurality of reaction mounts with reaction wells 3 arranged on the radius of the carousel, a rotator that rotates the carousel step-wise around the axis...” (Office Action, page 3.) The Examiner has not alleged, much less demonstrated, that Harris, Raysberg or Brennan teach movable stations above the reaction wells. Although claims 87-100 do not require movable stations, Applicants do not believe the subject matter of those claims is taught by Harris, Raysberg or Brennan, either alone or in combination. In addition, the Examiner’s reference to Harris’ “reaction mount 20” is incorrect. Component 20 is not a reaction mount but the upper section of reaction capsule 14 (Harris, col. 3, lines 55-62). As such, Applicants believe the rejection is insufficient and incorrect with respect to the technology and it is requested that this rejection be withdrawn.

Even if the Applicants’ technical arguments are incorrect, the Examiner’s rejection remains legally deficient. The Examiner must provide “a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references”, and has not done so. Manual of Patent Examining Procedure (MPEP) § 706.02(j) (eighth edition, revision 5, August 2006). The Federal Circuit has recently reiterated that “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” to avoid “the pitfalls of hindsight that belie a determination of obviousness.” *Innogenetics, N.V. v. Abbott Laboratories*, No. 2007-1145, -1161 (Federal Circuit; Jan. 17, 2008), *citing In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“To facilitate review, this analysis should be made explicit.”) *See also KSR Int’l v. Teleflex Inc.*, 550 U.S. at \_\_\_, Slip Op. at 1-24 (Apr. 30, 2007) (No. 04-1350). Beyond simply calling for any explanation, the courts have consistently held that an obviousness argument must include a showing of a specific motivation to combine the references.

The requirement for a showing of a motivation to combine is still alive and well. It is clear that the mere fact that the prior art may be modified does not make the modification obvious unless the prior art suggests the desirability thereof. *In re Lulu*, 747 F.2d 703, 223 USPQ 1257 (Fed. Cir. 1984). In *Innogenetics*, the District Court refused to enter an expert opinion regarding obviousness because it was merely conclusory and did not offer any evidence of motivation to combine the references listed therein. As described therein:

... Abbott argues. . .that the District Court erred in concluding that Dr. Patterson did not offer any evidence of a “motivation to combine” the various prior art references that he opined rendered the ‘704 patent obvious. To be sure, Dr. Patterson suggested that one of skill in the art was motivated to find a method capable of genotyping because at least one prior art reference had disclosed that “different genotypes of HCV respond differently to interferon therapy.” The district court was nonetheless correct that knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references to reach the particular claimed method. *Innogenetics*, slip op. at 14 (“A generalized motivation to develop a method is not the kind of motivation required by the patent laws.”). We cannot conclude that the district court abused its discretion when it precluded Dr. Patterson’s vague and conclusory obviousness testimony which did not offer any motivation for one skilled in the art to combine the particular references he cites in order to practice the claimed method.

The court continued, in footnote 3, stating:

There was a complete absence of any proof that one skilled in the art would find the particular claimed method obvious based upon Dr. Patterson’s list of prior art references or the knowledge generally available to those of ordinary skill in the art for any reason. We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.

And, furthermore:

... [A]s the district court held, “some kind of motivation must be shown from some source, so that the jury can understand why a person of ordinary skill would have thought of either combining two or more references or modifying one to achieve the patented method.” (*Emphasis added.*)

Similarly, in the instant case, the Examiner improperly alleges that Harris, Raysberg, and Brennan teach various components of the claimed invention and then merely concludes the claimed invention would have been obvious. The Examiner alleged that Harris discloses “a reaction system substantially as claimed” but failed to teach “plural wells per mount with a common drain or radially moveable dispense heads or movement of the drain receptacles.” (Office Action, page 3.) Raysberg, the Examiner alleges, discloses a plurality of reaction mounts. The Examiner then alleges that Brennan discloses “a device for processing samples in filter wells 26 in communication with common drain chamber 81” and “nucleic acids attached to solid supports such as controlled pore glass and acetonitrile in the wells.” This listing of the components allegedly taught in these references is then followed by the conclusory statements reproduced below from page 4-5 of the Office Action:

It would have been obvious to provide plural reaction wells in a sample mount of Harris as taught by Raysberg in order to increase carousel capacity.

It would have been obvious to make the dispenser of Harris moveable up and down and radially moveable as taught by Raysberg in order to access the mounts and/or remove the dispenser from the carousel as shown by Raysberg.

It would have been obvious to move the drain 112 of Harris with respect to the carousel in order to use the vacuum instead of or in addition to pressure to drain the mounts as taught by Raysberg.

It would have been obvious to provide the wells in communication with a common drain chamber in order to simultaneously remove fluid [from] the wells as taught by Brennan.

It would have been further obvious to provide nucleic acids of varying length on solid supports (including the well known polymer supports, such as polystyrene or cellulose or nitrocellulose) and acetonitrile in the wells in order to use wells to synthesize nucleic acids as taught by Brennan.

At most, the Examiner has provided some information regarding how the various components of Harris, Raysberg, and Brennan could function if put together. However, much like the expert in Innogenetics, the Examiner has not provided any evidence as to

why one of skill in the art would have been motivated to make the combination. Applicants respectfully maintain that the claimed invention is only “obvious” with their disclosure in hand. The Examiner is engaging in an improper hindsight analysis and Applicants do not believe they should suffer the “pitfalls” thereof. The Examiner has failed to show any motivation to combine the cited references and is required to do so. The Examiner has only provided a listing of published components and their functions followed by conclusory statements regarding obviousness. The Examiner’s comments on page 7 (point 7) of the Office Action as to the inclusion of a sixteen well limitation do nothing to satisfy these deficiencies.

Applicants respectfully maintain that the Examiner has not made a *prima facie* showing of obviousness. Accordingly, it is respectfully requested that these rejections be withdrawn.

**B. Rejection of claims 64 and 70-73 over Feygin in view of Raysburg and Brennan**

Claims 64 and 70-73 stand rejected under 35 U.S.C. 103(a) as being obvious over Feygin *et al.* (U.S. Pat. No. 6,890,491) in view of Raysburg *et al.* (U.S. Pat. No. 5,106,583), and Brennan (U.S. Pat. No. 5,472,672). (Office Action, page 5.) Applicants respectfully disagree and traverse this rejection as set forth below. In addition, Applicants do not believe the rejections would be applicable to new claims 75-100 for at least the reasons set forth below.

The Examiner states at page 6 of the Office Action that Applicants’ arguments filed July 25, 2007 were fully considered but not considered persuasive. In those arguments, Applicants pointed out that recent case law requires a successful obviousness argument to do more than merely demonstrate that the various elements of a claimed invention were independently known in the prior art. (*KSR Int’l v. Teleflex Inc.*, 550 U.S. at \_\_, Slip Op. at 1-24 (Apr. 30, 2007) (No. 04-1350). Applicants respectfully maintain that the present rejections suffer from the same deficiencies as did those of the previous Office Action. Namely, the rejection is insufficient with respect to the technology and is completely silent as to what would have motivated one of skill in the art to combine the

various elements of the prior art. As such, the Examiner has not made a *prima facie* showing of obviousness.

The rejection is insufficient with respect to the technology. The Examiner has not alleged, much less demonstrated, that Feygin teaches movable stations above the reaction wells. Similarly, the Examiner only alleges that Raysberg teaches “a carousel 19 with a plurality of reaction mounts with reaction wells 3 arranged on the radius of the carousel, a rotator that rotates the carousel step-wise around the axis....” (Office Action, page 5.) The Examiner has not alleged, much less demonstrated, that Feynig and Raysberg, or either reference alone, teach movable stations above the reaction wells. Although claims 87-100 do not require movable stations, Applicants do not believe the subject matter of those claims is taught by Feynig, Raysberg or Brennan, either alone or in combination. Applicants believe the rejection is technically insufficient and it is requested that this rejection be withdrawn.

Even if the Applicants’ technical arguments are incorrect, the rejection remains legally deficient. The Examiner must provide “a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references”, and has not done so. MPEP § 706.02(j). The Federal Circuit has recently reiterated that “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” to avoid “the pitfalls of hindsight that belie a determination of obviousness”. *Innogenetics, N.V. v. Abbott Laboratories*, No. 2007-1145, -1161 (Federal Circuit; Jan. 17, 2008), *citing In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“To facilitate review, this analysis should be made explicit.”) (*See also KSR Int’l v. Teleflex Inc.*, 550 U.S. at \_\_\_, Slip Op. at 1-24 (Apr. 30, 2007) (No. 04-1350) Beyond simply calling for any explanation, the courts have consistently held that an obviousness argument must include a showing of a specific motivation to combine the references.

The requirement for a showing of a motivation to combine is still alive and well. It is clear that the mere fact that the prior art may be modified does not make the modification obvious unless the prior art suggests the desirability thereof. *In re Lulu*, 747 F.2d 703, 223 USPQ 1257 (Fed. Cir. 1984). In *Innogenetics*, the District Court refused to enter an expert opinion regarding obviousness because it was merely conclusory and did

not offer any evidence of motivation to combine the references listed therein. As described therein:

. . . Abbott argues. . . that the District Court erred in concluding that Dr. Patterson did not offer any evidence of a “motivation to combine” the various prior art references that he opined rendered the ‘704 patent obvious. To be sure, Dr. Patterson suggested that one of skill in the art was motivated to find a method capable of genotyping because at least one prior art reference had disclosed that “different genotypes of HCV respond differently to interferon therapy.” The district court was nonetheless correct that knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references to reach the particular claimed method. Innogenetics, slip op. at 14 (“A generalized motivation to develop a method is not the kind of motivation required by the patent laws.”). We cannot conclude that the district court abused its discretion when it precluded Dr. Patterson’s vague and conclusory obviousness testimony which did not offer any motivation for one skilled in the art to combine the particular references he cites in order to practice the claimed method.

The court continued, in footnote 3, stating:

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And, furthermore:

. . . [A]s the district court held, “some kind of motivation must be shown from some source, so that the jury can understand why a person of ordinary skill would have thought of either combining two or more references or modifying one to achieve the patented method.” (*Emphasis added.*)

Similarly, in the instant case, the Examiner improperly alleges that Feygin and Raysberg teach various components of the claimed invention and then merely concludes the claimed invention would have been obvious. The Examiner alleged that Feygin teaches certain components of the claimed apparatus but fails to teach “plural wells per mount with a common drain chamber or radially moveable dispense heads or



raising/lowering of the drains.” Raysberg, the Examiner alleges, discloses a plurality of reaction mounts. The Examiner then alleges that Brennan discloses “a device for processing samples in filter wells 26 in communication with common drain chamber 81” and “nucleic acids attached to solid supports such as controlled pore glass and acetonitrile in the wells.” This listing of the components allegedly taught in these references is then followed by the conclusory statements reproduced below from page 6 of the Office Action:

It would have been obvious to provide plural reaction wells in a sample mount of Feygin as taught by Raysberg in order to increase carousel capacity.

It would have been obvious to make the dispenser of Feygin moveable up and down and radially moveable as taught by Raysberg in order to access the mounts and/or remove the dispenser from the carousel as shown by Raysberg.

It would have been obvious to raise/lower the drains of Feygin with respect to the carousel in order to use couple the vacuum to drain the mounts as taught by Raysberg.

It would have been obvious to provide the wells in communication with a common drain chamber in order to simultaneously remove fluid [from] the wells as taught by Brennan.

It would have been further obvious to provide nucleic acids of varying length on solid supports (including the well known polymer supports, such as polystyrene or cellulose or nitrocellulose) and acetonitrile in the wells in order to use wells to synthesize nucleic acids as taught by Brennan.

At most, the Examiner has provided some information regarding how the various components of Feynig, Raysberg, and Brennan could function if put together. However, much like the expert in Innogenetics, the Examiner provide any evidence as to why one of skill in the art would have been motivated to make the combination. Applicants respectfully maintain that the claimed invention is only “obvious” with their disclosure in hand. The Examiner is engaging in an improper hindsight analysis and Applicants do not believe they should suffer the “pitfalls” thereof. The Examiner has failed to show any motivation to combine the cited references and is required to do so. The Examiner has

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Applicants respectfully maintain that the Examiner has not made a *prima facie* showing of obviousness. Accordingly, it is respectfully requested that these rejections be withdrawn.

### ***Conclusion***

Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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